# Two New Pacific Cone Shells

(Gastropoda : Conidae)

# and a New *Pleurotomella*

(Gastropoda : Turridae)

# from the Hatteras Abyssal Plain

BY

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(3 Plates)

This paper is concerned with the descriptions of 3 new molluscan species from different parts of the globe. One of the cones described as new inhabits the seas around southern Japan, the other the Solomon Sea area. The new *Pleurotomella* was collected from very deep water off the Cape Hatteras region, North Carolina. Together these 3 new species represent interesting finds and contribute to our knowledge of the sublittoral and abyssal faunas of those areas.

## I.

Over the past several years, a number of unusual cones in the subgenus *Phasmoconus* Mörch, 1852 have been collected in the Philippines, New Guinea, the Solomon Sea, and the Fijis. These were often misidentified as *Conus (Phasmoconus) ochroleucus* Gmelin 1791. However, after closer examination and a thorough search of the literature, it was concluded that they were distinct from that species and previously undescribed. Because of the possession of many morphological traits not found in other members of *Phasmoconus,* the following taxon is proposed.

## NEOGASTROPODA

### Conidae Linnaeus, 1758

*Conus (Phasmoconus) **pilkeyi*** Petuch, spec. nov.

(Figures *3, 4, 5, 6,* and *9*)

**Description:** Shell glossy, elongate and tapered towards the anterior end. Body whorl smooth with 7 to 15 spiral sulci at the base. Shoulder rounded, spire angle about 45°, spire whorls with 5 to 9 spiral cords. Coloration variable, specimens from different localities varying from a uniform dark brown to a bright yellow with 2 darker bands. Early spire whorls dark brown; later whorls varying in color from yellow to light brown overlaid with dark brown flammules. Aperture bright orange, in some specimens deepen-

## Explanation of Figures *1* to *6*

Figure *1*: *Conus **kurzi*** Petuch, spec. nov.; dorsal aspect of holotype

Figure *2*: *Conus **kurzi*** Petuch, spec. nov.; ventral aspect of holotype

Figure *3*: *Conus **pilkeyi*** Petuch, spec. nov.; dorsal aspect of holotype

Figure *4*: *Conus **pilkeyi*** Petuch, spec. nov.; ventral aspect of holotype

Figure *5*: *Conus **pilkeyi*** Petuch, spec. nov.; light color form, dorsal aspect

Figure *6*: *Conus **pilkeyi*** Petuch, spec. nov.; light color form, ventral aspect

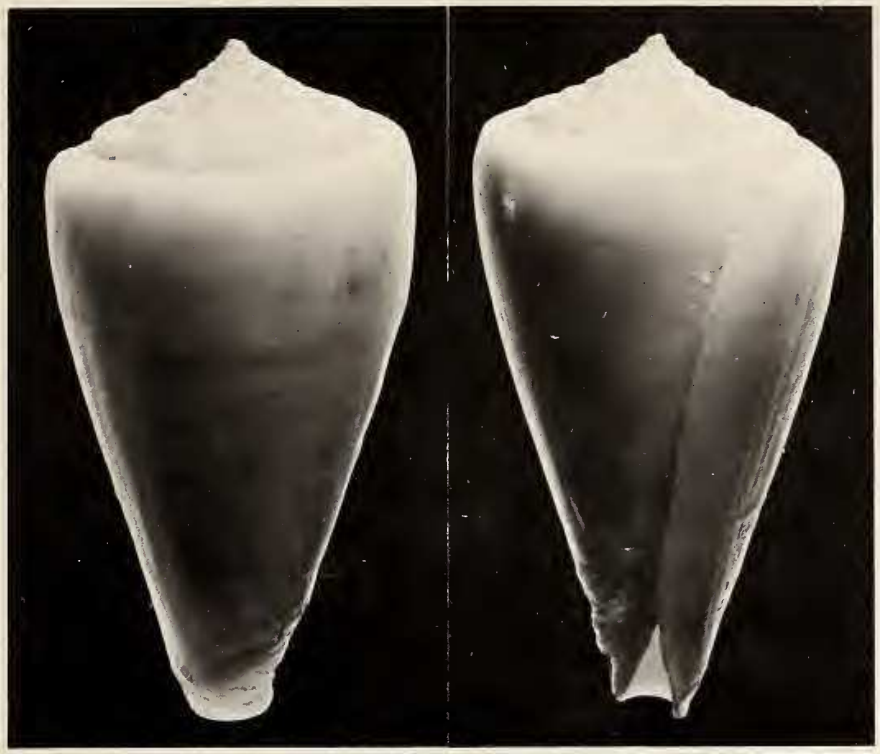

Figure 1

Figure 3

Figure 4

Figure 5

Figure 6

ing to a rich rust-red. In very dark specimens, the anterior tip of the shell is bright orange, contrasting vividly with the rest of the shell.

**Dimensions of the Holotype:** Length 59 mm; width 25 mm

**Type Locality:** The type was dredged from 54 m of water in the Marau Sound (10°02′S; 159°00′), north of Guadalcanal, British Solomon Islands.

**Occurrence:** Like the other members of *Phasmoconus*, this species appears to inhabit deep water with a preference of between 36 and 90 m on sandy bottoms.

**Holotype:** California Academy of Sciences, San Francisco, California, Geology Department Type Collection No. 54110.

**Discussion:** It is interesting to note that this species has several distinct populations. One of these, centered around Guadalcanal, is characterized by being of a very dark color (Figures *3* and *4*). The holotype is of this form. It also can be found in a light color variety (Figures *5* and *6*) that has been collected in the Philippines, the western Solomon Sea, and the Fijis (Cernohorsky, 1967). An intermediate variety, exhibiting a yellow color with brown flammules has been collected off the New Ireland coast (Figure *9*).

It is the light color form of *Conus **pilkeyi*** that has been confused with *C. ochroleucus* Gmelin, 1791 (Figures *7* and *8*). However, it can easily be separated from that species by having a much broader shoulder, and a lower, non-scalariform spire with distinct brown flammules. The protoconchs of the 2 species also differ greatly, that of *C. **pilkeyi*** being more attenuated. The aperture of *C. ochroleucus* varies from white to pale yellow-orange while that of *C. **pilkeyi*** is always an intense orange-red which, in most specimens, extends all the way to the lip. Pale color forms of *C. lynceus* Sowerby, 1857 from the region of New Guinea (Figure *10*) could also be confused with *C. **pilkeyi***, but close examination shows that they bear little more than a superficial resemblance. Their pale color bands and bright purple aperture set them off as a distinct species.

Cernohorsky (1967) illustrates specimens of *Conus **pilkeyi*** from the Fijis and identifies them as *C. daullei* Crosse, 1858. This shell, however, is a pale yellow color variant of *C. magus* Linnaeus, 1758, and appears to be endemic to the East African coast. *Conus praefectus* Hwass, 1792 has been suggested as a possible taxon for *C. **pilkeyi***, but Wagner & Abbott (1967) and Cernohorsky (*op. cit.*) state that this is an absolute synonym of *C. ochroleucus*. The original description of that species appears to confirm their statements.

This species is named in honor of Dr. Orrin H. Pilkey, Department of Geology, Duke University, Durham, North Carolina.

## II.

The Japanese coral fishermen, while dredging off Shikoku Island, Japan, have also brought to light a number of new and interesting mollusks over the past few years. These mollusks belong to a deep-water faunal assemblage that extends from Taiwan through the Ryukyu Archipelago and north to the Kii Peninsula of Honshu Island, Japan. This assemblage occurs at a mean depth of 80 m and is characterized by such *Conus* species as *C. hirasei* Kuroda, 1956, *C. fletcheri* Petuch & Mendenhall, 1972, *C. sugimotonis* Kuroda, 1956, *C. otohimeae* Kuroda & Ito, 1961, *C. kimioi* Habe, 1965, and many others.

While sorting through a collection of shells taken off Shikoku Island by coral boats in October, 1972, I noticed 2 specimens of an unusual cone. This species proved to be new to science and is described herein.

*Conus **kurzi*** Petuch, spec. nov.

(Figures *1* and *2*)

**Description:** Shell glossy, slightly pyriform and tapered toward the anterior end. Body whorl smooth with a few faint sulci at the extreme anterior tip. Spire weakly coronated. Color bright yellow-orange with a rose-pink spire and shoulder and a white anterior tip. The holotype has a few brown dots along the shoulder but these are absent on the other specimen. Aperture orange, fading to a pinkish-white in the interior. Periostracum smooth, transparent yellow, with small tufts along the shoulder.

**Dimensions of the Holotype:** Length 30 mm; width 17 mm

**Type Locality:** the type was dredged by coral fishermen in 72 m of water approximately 32 km SE of Tosa Shimizu, Shikoku Island, Japan (32°40′N; 133°12′E).

**Holotype:** California Academy of Sciences, San Francisco, California, Geology Department Type Collection No. 54109.

**Discussion:** *Conus kurzi* (Figures *1* and *2*) is quite distinct from any other small cone found in the Japanese area. The only species with which it might be confused is